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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,952	12/06/2000	Amit Gal-on	1268-107	7377

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EXAMINER

HELMER, GEORGIA L

ART UNIT PAPER NUMBER

1638

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

09/647,952

### Applicant(s)

GAL-ON, AMIT

### Examiner

Georgia L. Helmer

### Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,10-12,15 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,10-12,15 and 20 is/are rejected.
- 7) ☒ Claim(s) 6,11,12 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Status of the Claims***

1. The Office acknowledges receipt of Applicant's Appeal Brief filed 5 March 2004.
2. The Finality of the previous Office Action is withdrawn.
3. Claims 1, 2, 6, 10-12, 15, and 20 are pending, and are examined in the instant action.
4. All rejections not addressed below have been withdrawn.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

6. Claims 6, 11, 12 and 20 remain objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim is drawn to "any of" claims "1 and 2", "any of" claims "1, 2 and 6", "any of" claims "1, 2, 6, 10 and 11", "1, 2, 6, 10, 11 and 12". This language needs to be amended to delete "any of" and replace "and" with "or". See MPEP § 608.01(n).

7. Claim 11 <sup>15</sup> is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Applicant's arguments filed 5 March 2004 are not persuasive. Applicant traverses saying primarily that the language of the claims is in the alternative.

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Applicant's traversal is unpersuasive. The Examiner maintains that the wording "any of" is ambiguous and does not clearly refer to one and only one of the recited claims on which the claim depends.

***Claim Rejections - 35 USC § 112, second paragraph***

8. Claims 1, 2, 6, 10-12, 15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. .

In claim 1, and all claims dependent thereon, "single mutation" is indefinite because the frame of reference is not specified. See Rieger, et. al., Glossary of Genetics and Cytogenetics, 1976, page 377, stating that the standard of reference for a mutant is the so-called wild-type, either the state of organisms as they are found in nature or arbitrarily chosen. In the present case, it is unclear what would be considered a single mutation, because it is unclear what sequence has been mutated. And the specification fails to define or clarify what would be considered the "wild-type".

Applicant traverses saying primarily that the above language is patently distinct from Huet. Applicant's traversal is unpersuasive as discussed above.

In claim 11, the antecedence of "potyvirus" is unclear because two potyvirus are recited in claim 1.

***Claim Rejections - 35 USC § 102***

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9. Claims 1-6, 10- 12,15 and 20 remain rejected under 35 U.S.C. 102(b) as being anticipated by Huet, et al. (Mutations in the helper component protease gene of zucchini yellow mosaic virus affect its ability to mediate aphid transmissibility. J. General Virology, vol. 75, 1994, pages 1407-1414) for reasons of record, repeated in part below.

Huet teaches a recombinant potyvirus infectious nucleic acid construct comprising a full length clone having its HC-Pro conserved FRNK box containing a substitution (Figure 1, p 1408, details the full length clone of ZYMV-HC with a FRNK box substitution), where the substitution is of Ile for Arg (Table 2, p 1410), where the potyvirus is ZYMV, where the nucleic acid is a cDNA (Figure 1, page 1408, 1<sup>st</sup> line of legend), and a recombinant potyvirus PPV (p1410, Figure 2). Huet further teaches a recombinant construct where the full length clone has a sequence of DNA or RNA inserted into the full length clone (Figure 1, pg 1408, line 3 of legend, detailing the T7 promoter insertion), a method for introducing a foreign nucleic acid into plants by infecting a plant with a full length clone (p1409, last paragraph), and using the recited nucleic acid construct to inoculate plants and obtain progeny virus (Table 1, p 1410, and Table 2, p 1411).

Applicant traverses, stating primarily (Response, p. 11) that Huet at the time of publication was in possession of a ZYMV mutant characterized by two mutations. That the claimed invention (claim 1) is directed to a construct containing a single mutation. Applicant asserts that this stipulation of a "single mutation" provides a reference point

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for patently distinguishing the claimed construct from the 2-mutant construct described by Huet.

Applicant's traversal has been considered and is unpersuasive Huet et. al. has not been defined as the reference point for the claimed potyvirus nucleic acid. Applicants have not set forth what sequence has been mutated, wherein a mutation is only define relative to a designated "wild-type" sequence. Therefore, given that the sequence taught by Huet et. al. meets all of the limitations of the claims, and Applicant has not set forth what specific sequence has only a single mutation, Huet el al. anticipate the claimed invention.

Accordingly Huet anticipates the claimed invention.

**Remarks**

10. No claim is allowed.

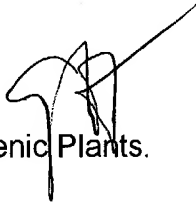
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Georgia L. Helmer whose telephone number is 571-272-0796. The examiner can normally be reached on 8:30 - 5:00.

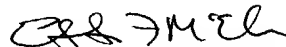
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on 571-272-0804. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Georgia Helmer PhD  
Patent Examiner  
Art Unit 1638 – Transgenic Plants.  
May 16, 2004



  
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